Listing of the Claims:

1. (Previously Presented) A method for making a ferritic stainless steel article having an oxidation resistant surface, the method comprising:

providing a ferritic stainless steel comprising at least 0.2 weight percent aluminum, at least one rare earth metal and 16 to less than 30 weight percent chromium, wherein the total weight of rare earth metals is from 0.02 to 1.0 weight percent; and

electropolishing at least one surface of the ferritic stainless steel,

so that, when subjected to an oxidizing atmosphere at high temperature, the electropolished surface develops an electrically conductive, aluminum-rich, oxidation resistant oxide scale comprising chromium and iron and having a hematite structure differing from Fe_2O_3, alpha Cr_2O_3 and alpha Al_2O_3.

2. (Original) The method of claim 1, wherein lattice parameters a_o and c_o of the oxide scale differ from a_o and c_o of Fe_2O_3, alpha Cr_2O_3 and alpha Al_2O_3.

3. (Currently Amended) The method of claim 1, wherein the at least one ~~modified~~ electropolished surface develops the oxide scale when heated in an oxidizing atmosphere at a temperature in the range of 750°C to 850°C.

4. (Currently Amended) The method of claim 1, wherein the at least one ~~modified~~ electropolished surface develops the oxide scale when heated in an oxidizing atmosphere for at least 100 hours at a temperature in the range of 750°C to 850°C.

5. (Original) The method of claim 1, wherein the oxide scale is characterized by lattice parameters a_o in the range of 4.95 to 5.04 Å and c_o in the range of 13.58 to 13.75 Å.

6. (Withdrawn) The method of claim 1, wherein the oxide scale is characterized by nominal lattice parameters a_o = 4.98 Å and c_o = 13.57 Å.

7. (Canceled)

8. (Canceled)

9. (Currently Amended) The method of claim 1, wherein the ~~modified~~ electropolished surface develops the oxide scale when heated in an oxidizing atmosphere for at least 100 hours at a temperature in the range of 750°C to 850°C, and wherein the oxide scale is characterized by a_o in the range of 4.95 to 5.04 Å and c_o in the range of 13.58 to 13.75 Å.

10. (Previously Presented) A method for making a ferritic stainless steel article having at least one oxidation resistant surface, the method comprising:

providing a ferritic stainless steel comprising at least 0.2 weight percent aluminum, at least one rare earth metal and 16 to less than 30 weight percent chromium, wherein the total weight of rare earth metals is from 0.02 to 1.0 weight percent; and

electropolishing at least one surface of the ferritic stainless steel,

so that the electropolished surface develops an aluminum-rich oxide scale when heated in an oxidizing atmosphere for at least 100 hours at a temperature in the range of 750°C to 850°C, the oxide scale comprising iron and chromium and having a hematite structure, a_o in the range of 4.95 to 5.04 Å and c_o in the range of 13.58 to 13.75 Å.

11. (Previously Presented) A method for making a ferritic stainless steel article having an uncoated electropolished oxidation resistant surface, the method comprising:

providing a ferritic stainless steel comprising at least 0.2 weight percent aluminum, at least one rare earth metal and 16 to less than 30 weight percent

chromium, wherein the total weight of rare earth metals is from 0.02 to 1.0 weight percent; and

electropolishing at least one surface of the ferritic stainless steel.

12. (Canceled)

13. (Previously Presented) The method of claim 11, wherein the at least one electropolished surface develops an aluminum-rich oxide scale comprising iron and chromium and having a hematite structure, a_o in the range of 4.95 to 5.04 Å and c_o in the range of 13.58 to 13.75 Å, when heated in an oxidizing atmosphere for at least 100 hours at a temperature in the range of 750°C to 850°C.

14. (Withdrawn) The method of claim 12, wherein the ferritic stainless steel comprises 16 up to 19 weight percent chromium.

15. (Canceled)

16. (Previously Presented) The method of claim 11, wherein the ferritic stainless steel comprises 0.2 up to 1.0 weight percent aluminum.

17. (Canceled)

18. (Previously Presented) The method of claim 11, wherein the ferritic stainless steel comprises at least one metal selected from the rare earth metals cerium, lanthanum, and yttrium and the transition metal hafnium.

19. (Canceled)

20. (Previously Presented) The method of claim 11, wherein the ferritic stainless steel comprises, in weight percent, 18 up to 22 chromium, 0.4 to 0.8 aluminum and 0.02 to 0.2 REM.

21. (Previously Presented) The method of claim 11, wherein the ferritic stainless steel further comprises, in weight percent, up to 3 nickel, up to 3 manganese, up to 0.7 silicon, up to 0.07 nitrogen, up to 0.07 carbon and up to 0.5 titanium.

22. (Previously Presented) The method of claim 11, wherein the ferritic stainless steel comprises, in weight percent, about 22 chromium, about 0.6 aluminum, cerium and lanthanum, wherein the sum of the weights of cerium and lanthanum is up to about 0.10.

23. (Withdrawn) The method of claim 12, wherein the article is selected from the group consisting of a plate, a sheet, a strip, a foil, a bar, a fuel cell interconnect, high-temperature manufacturing equipment, high-temperature handling equipment, calcining equipment, glass making equipment, glass handling equipment, heat exchanger components.

24. (Withdrawn) The method of claim 12, wherein the article is a fuel cell interconnect and the ferritic stainless steel comprises 16 to less than 30 weight percent chromium, at least 0.2 weight percent aluminum, and at least one rare earth metal, wherein the total weight of rare earth metals is greater than 0.02 up to 1.0 weight percent.

25. (Previously Presented) The method of claim 11, wherein electropolishing the at least one surface of the article comprises:

placing the at least one surface of the article in a bath containing an electropolishing solution and a cathode; and

passing a current between the article and the cathode so that material is removed from the at least one surface, thereby reducing surface roughness of the surface.

26. (Previously Presented) The method of claim 11, wherein electropolishing the at least one surface improves resistance of the at least one surface to oxidation when subjected to a temperature and an atmosphere characteristic of operating conditions within a solid oxide fuel cell.

27. (Withdrawn) The method of claim 12, wherein the at least one electropolished surface has oxidation resistance in air at 750°C characterized by a log k_p less than -9.1 g^2/cm^4h.

28. (Withdrawn) The method of claim 12, wherein the at least one electropolished surface has oxidation resistance in air at 850°C characterized by a log k_p less than -8.5 g^2/cm^4h.

29-98. (Cancelled)